IN THE CLAIMS:

1. (currently amended) A computer-implemented process for obtaining progressively higher quality versions of an audio-only program, ~~and/or~~ video-only program, or audio and video program over a client-server based network, comprising a client computer performing the process actions of:

requesting a base quality version of the program from a server over the network, wherein the base quality version of the program comprises layer data of a layered unicast having hierarchically related layers in that the lowest level layer is a base layer and each subsequently higher level layer adds enhancing information for enhancing the quality of the program that can be rendered from the layers preceding it in the hierarchy, and wherein requesting a base quality version of the program from a server over the network comprises requesting as many layers, in the order of their position in the hierarchy starting with the base layer, as can be transmitted from the server to the client without exceeding the available bandwidth of the network;

receiving and caching the requested layer data associated with the base quality version of the program;

requesting at least one enhancement layer of the layered unicast from the server over the network;

receiving and caching the requested enhancement layer data; and

combining the requested enhancement layer data with the previously cached layer data associated with the base quality version of the program as it is received to produce a higher quality version of the program.

2. (original) The process of Claim 1, further comprising a process action of rendering the base quality version of the program as the requested data is received and presenting it to the user.

3. (original) The process of Claim 2, further comprising the process actions of:

determining if the user directs that the presentation of the base quality

version of the program be terminated;

terminating the presentation of the base quality version of the program to the user.

4. (original) The process of Claim 3, wherein the process action of terminating the presentation comprises the action of terminating the incoming data stream associated with the requested base quality version of the program.

5. (original) The process of Claim 3, wherein the process action of terminating the presentation comprises the actions of stopping the rendering of the base quality version of the program, while continuing to receive and cache the incoming data stream associated with the requested base quality version of the program.

6. (original) The process of Claim 1, further comprising a process action of rendering the higher quality version of the program from the combined layer data and presenting it to the user.

7. (original) The process of Claim 6, further comprising the process actions of:

determining if the user directs that the presentation of the higher quality version of the program be terminated;

terminating the presentation of the higher quality version of the program to the user.

8. (original) The process of Claim 7, wherein the process action of terminating the presentation comprises the action of terminating the incoming data stream associated with the requested higher quality version of the program.

9. (original) The process of Claim 7, wherein the process action of terminating the presentation comprises the actions of stopping the rendering of the higher quality version of the program, while continuing to receive and cache the incoming data stream associated with the requested higher quality version of the program.

10. (original) The process of Claim 1, wherein the process actions of requesting at least one enhancement layer, receiving and caching the requested enhancement layer data and combining the requested enhancement layer data with the previously cached layer data associated with the base quality version of the program as it is received to produce said higher quality version of the program, are performed only when a user directs the client to provide a higher quality version of the program in comparison to the base quality version.

11. (original) The process of Claim 1, wherein the process actions of requesting at least one enhancement layer, receiving and caching the requested enhancement layer data and combining the requested enhancement layer data with the previously cached layer data associated with the base quality version of the program as it is received to produce said higher quality version of the program, are performed automatically once all the requested layer data associated with the base quality version of the program has been received and cached.

12. (original) The process of Claim 1, further comprising the process actions of:

requesting at least one additional enhancement layer of the layered unicast from the server over the network;

receiving and caching the requested additional enhancement layer data; and

combining the requested additional enhancement layer data with the previously cached layer data associated with the base and higher quality versions of the program as it is received to produce an enhanced higher quality version of the program.

13. (original) The process of Claim 1, further comprising the process actions of:

ascertaining whether the server has any remaining enhancement layers associated with the program available; and

whenever it is ascertained that the server has at least one remaining enhancement layer associated with the program,

requesting at least one additional enhancement layer of the layered unicast from the server over the network,

receiving and caching the requested additional enhancement layer data, and

combining the requested additional enhancement layer data with the previously cached layer data associated with the base and higher quality versions of the program as it is received to produce an enhanced higher quality version of the program.

14. (original) The process of Claim 13, wherein the process actions of requesting at least one additional enhancement layer, receiving and caching the requested additional enhancement layer data and combining the requested additional enhancement layer data with the previously cached layer data associated with the base and higher quality versions of the program to produce said enhanced higher quality version of the program, are performed only when a user directs the client to provide the enhanced higher quality version of the program.

15. (original) The process of Claim 13, wherein the process actions of requesting at least one additional enhancement layer, receiving and caching the requested additional enhancement layer data and combining the requested additional enhancement layer data with the previously cached layer data associated with the base and higher quality versions of the program to produce said enhanced higher quality version of the program, are performed automatically once all the requested layer data associated with the higher quality version of the program has been received and cached.

16. (original) The process of Claim 13, further comprising a process action of informing the user that an enhanced higher quality version of the program cannot be provided whenever it is ascertained that the server does not have any remaining

enhancement layers associated with the program available.

17. (cancelled)

18. (previously presented) The process of Claim 1, wherein the process action of requesting at least one enhancement layer, comprises the action of requesting as many enhancement layers, in the order of their position in the hierarchy starting with the layer next higher in the hierarchy from the highest level layer requested in association with the base quality version of the program, as can be transmitted from the server to the client without exceeding the available bandwidth of the network.

19. (original) The process of Claim 1, wherein the process actions of requesting a base quality version of the program and requesting at least one enhancement layer comprises requesting that the data making up each layer be provided in its entirety.

20. (original) The process of Claim 1, wherein the process action of requesting a base quality version of the program comprises the action of requesting the data making up each layer of the base quality version in sequential, equal-sized, temporally corresponding portions such that the layer portions associated with a time segment at the beginning of the program are requested first, and then the layer portions associated with the next sequential time segment of the program are requested, and so on.

21. (previously presented) The process of Claim 20, wherein the process action of requesting the data making up each layer of the base quality version in sequential, equal-sized, temporally corresponding portions comprises the action of requesting said layer portions from as many layers, in the order of their position in the hierarchy starting with the base layer, as can be transmitted from the server to the client without exceeding the available bandwidth of the network.

22. (original) The process of Claim 20, wherein the process action of requesting at least one enhancement layer of the program comprises the action of

requesting the data making up each enhancement layer in sequential, equal-sized, temporally corresponding portions such that the layer portions associated with time segment at the beginning of the program are requested first, and then the layer portions associated with the next sequential time segment of the program are requested, and so on.

23. (original) The process of Claim 22, wherein the process action of requesting the data making up each enhancement layer in sequential, equal-sized, temporally corresponding portions, comprises the action of requesting said enhancement layer portions from as many enhancement layers, in the order of their position in the hierarchy starting with the layer next higher in the hierarchy from the highest level layer requested in association with the base quality version of the program, as can be transmitted from the server to the client without exceeding the available bandwidth of the network.

24. (original) The process of Claim 22, wherein the length of each time segment of the program is matched to the rate at which the available bandwidth varies on the network such that each time segment is short enough that the network bandwidth does not vary significantly over the period.

25. (currently amended) A client-server based computer network for obtaining progressively higher quality versions of an audio-only program, ~~and/or~~ video-only program, or audio and video program, comprising:

a client comprising at least one general purpose computing device; and

a computer program comprising program modules executable by the client, wherein the client is directed by the program modules to,

receive an instruction from a user to provide the program for viewing,

request a base quality version of the program from a server over the network, wherein the base quality version of the program comprises layer data of a layered unicast having hierarchically related layers in that the lowest level layer is a base layer and each subsequently higher level layer adds enhancing information for

enhancing the quality of the program that can be rendered from the layers preceding it in the hierarchy, and wherein requesting a base quality version of the program from a server over the network comprises requesting as many layers, in the order of their position in the hierarchy starting with the base layer, as can be transmitted from the server to the client without exceeding the available bandwidth of the network,

receive and cache the requested layer data associated with the base quality version of the program, and

render the base quality version of the program as the requested data is received and present it to the user.

26. (previously presented) The network of Claim 35, further comprising program modules for:

determining if the user directs that the presentation of the base quality version of the program be terminated; and

whenever it is determined that the user has directed that the presentation of the base quality version of the program be terminated, terminating said presentation.

27. (currently amended) A computer-readable medium having computer-executable instructions, that are executed on a client computer, for obtaining progressively higher quality versions of an audio-only program, ~~and/or~~ video-only program, or audio and video program over a network, said computer-executable instructions comprising:

requesting a base quality version of the program, wherein the base quality version of the program comprises layer data of a layered unicast having hierarchically related layers in that the lowest level layer is a base layer and each subsequently higher level layer adds enhancing information for enhancing the quality of the program that can be rendered from the layers preceding it in the hierarchy, and wherein requesting a base quality version of the program from a server over the network comprises requesting as many layers, in the order of their position in the hierarchy starting with the base layer, as can be transmitted from the server to the client without exceeding the

available bandwidth of the network;

receiving and caching the requested layer data associated with the base quality version of the program; and

rendering the base quality version of the program as the requested data is received and presenting it to the user.

28 – 34. (cancelled)

35. (original) The network of claim 25, further comprising program modules for:

determining if the user directs that a higher quality version of the program be provided for viewing; and

whenever it is determined that the user has directed a higher quality version of the program to be provided,

request at least one enhancement layer of the layered unicast from the server over the network,

receive and cache the requested enhancement layer data,

combine the requested enhancement layer data with the previously cached layer data associated with the base quality version of the program as it is received to produce the higher quality version of the program, and

render the higher quality version of the program from the combined layer data and present it to the user.

36. (original) The computer-readable medium of claim 27, further comprising computer-executable instructions for:

upon a user directing that a higher quality version of the program be provided, requesting at least one enhancement layer of the layered unicast from the server over the network;

receiving and caching the requested enhancement layer data;

combining the requested enhancement layer data with the previously cached layer data associated with the base quality version of the program as it is received to produce a higher quality version of the program; and

rendering the higher quality version of the program from the combined layer data and presenting it to the user.